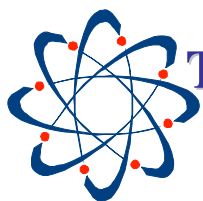


*** Your "SOURCE" for the "HOTTEST" News in Radiation Safety ***



THE RADCO REGISTER

VOLUME 13, No.4

Fall 2003

A CECOM PUBLICATION FOR THE U.S. ARMY NATIONAL GUARD



World Series

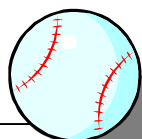


NL Champs



AL Champs

Yogi says:



it ain't
over...
'till it's
over..!!

Radco says:

read me...
over and
over..!!





in this issue...

ON GUARD.

page

- 3... Safe and Secure...!! Helpful Tips for Safeguarding the MC-1 Soil & Density Tester
- 5... From the Old School...to Reform School...!! New Rules for Leak Testing the CAM
- 7... New "Special Form Certificate" for the AN/UDM-2 RADIAC Calibrator Set
- 7... Analyze This... New Leak Test Request Form
- 8... We Love to See Your Smiling Faces... Announcing Our FY04 RSP Evaluation Schedule
- 10.. Why "MAM"... Had I Only Known...!!
- 12.. A Wing and a Prayer
- 12.. It's Outta' the Question! ...w/Burt "the answer man"

PUZZLES & BRAINTEASERS.

- 9... QUICKIE QUIZ

NON-IONIZING CORNER.

- 13.. Feeling the Heat...How RF Radiation Effects the Body...!!

PUZZLES & BRAINTEASERS (solutions).

- 14.. QUICKIE QUIZ
- 14.. RADCO E-mail Address Form
- Leak Test Analysis Request Form (last page)

The distribution and content of this newsletter is directed to Army National Guard activities for which the U.S. Army Communications-Electronics Command (CECOM) Directorate for Safety, Radiological Engineering Division, serves as RSSO. The RADCO Register is published quarterly and is intended as a medium for the exchange of radiation safety information between CECOM and the National Guard Bureau. The primary distribution of this newsletter is to Occupational Health/State Safety Offices, U.S. Property & Fiscal Offices, and Combined Support Maintenance Shops, with local reproduction encouraged.



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**RADIATION SAFETY
STAFF OFFICER (RSSO):**
Mr. Stephen G. LaPoint, x6401
Director



RADIOLOGICAL ENGINEERING (RE) DIVISION STAFF:

Mr. Craig Goldberg, x6405
Division Chief
Mr. Hugo Bianchi, x6444
Health Physicist
Mr. Burt Cummings, x6426
Health Physicist
Mr. Al Perrella, x6443
Health Physicist
Mr. Ken Proctor, x6446
Electronics Engineer
Mr. Barry Silber, x6440
Health Physicist
Mr. Nicholas Bykovetz, x6441
Health Physicist
Ms. Alice Kearney, x6432
Safety Specialist
Mr. Gary Ziola, x6433
Health Physicist

CONTRACTOR SUPPORT TO RE DIVISION STAFF:

Mr. Nick Antonelli, x6448
Count Room Technician
Mr. Jason Simpson, x6450
Instrument Technician
Ms. Mary Chislett, x6452
Instrument Technician
Mr. Otto Bismark, x6429
Laboratory Technician

MAILING ADDRESS:

Commander, US Army CECOM
ATTN: AMSEL-SF-RE
Bldg 2539, CHARLES WOOD AREA
Fort Monmouth, NJ 07703-5024

VOICE: DSN: 987-3112

COM: (732) 427-3112

FACSIMILE: DSN: 992-6403

LABORATORY ADDRESS:

Commander, US Army CECOM
ATTN: AMSEL-SF-RE (LAB) Bldg 2540
Fort Monmouth, NJ 07703-5024

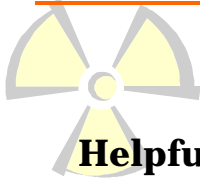
VOICE: DSN: 987-5370

COM: (732) 427-5370

FACSIMILE: DSN: 987-2667



EMAIL: AMSEL-SF-SEC@
mail1.monmouth.army.mil

ON GUARD...

**Safe and Secure...!!
Helpful Tips for
Safeguarding the
MC-1 Soil &
Density Tester**

Whoever coined the phrase "you never know what you're missing until it's gone" musta' never had an MC-1!!! LRSOs for the tester are fully aware that units possessing this device must maintain control and/or constant surveillance of it, or alternately, use a minimum of two independent physical controls to secure it at all times. These physical controls must be designed and constructed of material suitable for securing the tester from unauthorized removal.



**Examples for
Securing a Tester at
an Approved Unit
Storage Area:**

(1) The tester or transportation case containing the tester is stored inside a locked storage shed within a secured outdoor area, such as a fenced parking area with a locked gate;



(2) The tester or transportation case containing the tester is stored in a room with a locked door within a secured building for which the unit controls access by lock and key or by a security guard;

(3) The tester or transportation case containing the tester is stored inside a locked, non-portable cabinet inside a room with a locked door if the building is not secured;

(4) The tester or transportation case containing the tester is stored in a separate secured area inside a secured mini-warehouse or storage facility; or

(5) The tester or transportation case containing the tester is physically secured to the inside structure of a secured mini-warehouse or storage facility.

**Guidelines for
Securing a Tester in
a Vehicle:**

According to the NRC, a lock on the transportation case or a lock on the portable tester source rod handle is *not sufficient*. This is because of the case and the tester being portable. A vehicle should be used for storage only for a short period of time when a tester is in transit. A tester should only be kept in a vehicle overnight if it is not practicable to provide temporary storage in a permanent structure.

**Examples of
Physical Controls
for Testers in
Vehicles:**

(1) The locked transportation case containing the tester is physically secured to a vehicle with brackets, and a chain or steel cable (attached to the vehicle) is wrapped around the transportation case in such a way that the case cannot be opened unless the chain or cable is removed. In this example, the locked transportation case would count as one control because the brackets would prevent easy removal of the case. The chain or cable looped only through the transportation case handle is not acceptable.

(2) The tester or transportation case containing the tester is stored in a box physically attached to a vehicle, and the box is secured with:

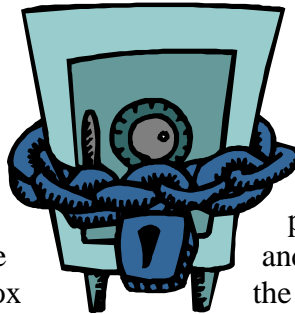
- (a) two independent locks;
- (b) two separate chains or steel cables attached independently to the vehicle in such a manner that the box cannot be opened without the removal of the chains or cables;

(c) one lock and one chain or steel cable is attached to the vehicle in such a manner that the box cannot be opened without the removal of the chain or cable; or,

(d) the tester or transportation case containing the tester is stored in a locked trunk, camper shell, van or other similar enclosure and is physically secured to the vehicle by a chain or steel cable in such a manner that one would not be able to open the case or remove the tester without removal of the chain or cable. In this example, the transportation case would not count as one control because it could be easily removed.

**Examples for
 Securing a Tester at
 a Temporary Jobsite
 or at Locations
 other than an
 Approved Unit Tester
 Storage Location:**

A permanent structure should be used if practicable to do so. When storing a tester in temporary locations,



the tester should be stored in a separate room away from personnel and meeting the radiation exposure limits set by the TM. Examples of physical controls are:

(a) at a temporary job site, the tester or transportation case containing the tester is stored inside a locked building or in a locked non-portable structure (e.g., construction trailer, sea container, etc.), and is physically secured by a chain or steel cable to a non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the tester without removing the chain or cable. Once again, a lock on the tester source rod handle would not be sufficient because the case and the tester are portable;

(b) the tester or transportation case containing the tester is

stored inside a locked room within temporary or permanent residential quarters, and is physically secured by a chain or steel cable to a permanent or non-portable structure (e.g., large metal drain pipe, support column, etc.) so that an individual would not be able to open the transportation case or remove the tester without removing the chain or cable;

(c) the tester or transportation case containing the tester is stored in a locked garage, and is within a locked vehicle or is physically secured by a chain or steel cable to the vehicle in such a manner that an individual would not be able to open the transportation case or remove the tester without removing the chain or cable; or,



(d) the tester or transportation case containing the tester is stored in a locked garage, and is within a locked enclosure or is physically secured by a

chain or steel cable to a permanent or non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the tester without removing the chain or cable."

So there you have it...it's better to be safe than sorry...!!

To illustrate this point, four civilian companies were recently cited by the NRC for violations involving MC-1 testers. Violations involved unauthorized maintenance, use of a survey meter calibrated at improper intervals, failure to issue dosimetry to tester users, failure to ensure tester users are properly trained and **failure to control and maintain surveillance of testers.**

So anyone that says "they don't know what they are missing" obviously never had an MC-1 on their property book. One final word to the wise, the U.S. Army is not exempt from citations from the NRC! For additional information on securing your tester, contact Karen Lapenjenko, the MC-1 tester safety manager at TACOM-Warren. She can be reached at lapajenk@tacom.army.mil or DSN: 786-7635. ★



From the Old School...to Reform School...!! New Rules for Leak Testing the CAM...

Summer's over and that means that school is back in session. So why not start off the new semester with a shiny new "apple" for the teacher and a class on the procedure for wipe testing your CAMs and ICAMs...?? You've been taking wipes of each CAM and ICAM just the way you were taught since you were a "freshman" at the CSMS, haven't you? Well, we've got news for YOU... a lot has changed since you were in school, including the way we take wipes (whether for leak testing or prior to CAM/ICAM maintenance).

Up to now we've been advocating in our RSO Coursebook (following the guidance of TM 3-6665-331-23&P) to perform leak-testing on the CAMs as follows:

Lay out the CAM on tape-fastened Kraft paper. Install the environmental cap onto the CAM. Do *not* remove the nozzle protective cap. Using a nitrocellulose filter (e.g., Metricel wipe), wipe the

exterior surface of the CAM. Place the wipe filter into a counting vial and ship it off to the appropriate laboratory for counting.

That was the old way...



Now comes the new way! (The new procedure is outlined in Change No. 4 of Technical Manual 3-6665-331-23&P, 12 June 1992, corrections dated 30 April 2003, and was recently broadcast to the field.)

The current procedure for leak testing the CAM and ICAM is as follows:

- (1) Twist counterclockwise and *remove* the environmental cap from the back of the CAM. (*Allow the environmental cap to hang on its tether*).
- (2) Lightly moisten the nitrocellulose filter with a few drops of water. And here's the crux of it: carefully wipe the CAM around the nozzle protective cap assembly (do not remove the cap) then along the case *seal* and finally, around the interior of environmental cap (as illustrated on the next page). ***Pay particular attention to wiping the nozzle protective cap assembly, as the highest likelihood of contamination would appear here first...!!***

Now, if you do things this way, you'll go to the head of the class with the knowledge necessary to perform wipes in the most up-to-date way.

(3) Place the leak test filter approximately 1/4 in. in front of the probe and proceed to take a reading.

material storage area until you receive the laboratory wipe results.

On the other hand, if the RADIAC meter reading is less than twice background, it is permissible to return the CAM to use. But remember, it is the wipe test results returned from the laboratory that is the real indicator of whether Ni-63 contamination is actually present or not.

A word to the street-wise: a CAM or ICAM may be placed back into immediate use after performing the above procedures *provided* leakage of Ni-63 is not suspected or an accident involving the device has not occurred.



And, as always, ensure you use your RADIAC set (AN/VDR-2, or equivalent) to check the leak test filter (the Metricel) for contamination with Ni-63 source material. Here are the specifics:

(1) Adjust the RADIAC set to measure in the 0 to 0.5 mR/hr range (if not auto-ranging).



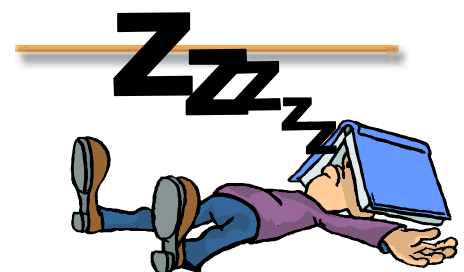
(2) Open the beta shield of the RADIAC probe.

CAUTION: Do not touch the probe window with the wipe material..!!

Next place the filter into the plastic vial and screw the cap on (as you've done before); and ship the vial off to your counting lab.

The added RADIAC measurement gives you a new approach for dealing with a possible contamination situation. Any sustained reading of the RADIAC (AN/VDR-2, or equivalent) that is *twice the background reading* is to be taken as an indication that there may be Ni-63 contamination. In this case, discontinue use of the CAM. Place the CAM in a double plastic bag and store it in a secure radioactive

So there you have it. It pays to know you're **A B C's** when wipe testing your **C A M's**..... We've also learned that, as the testing facility, it is not necessary to wait for the lab results before relinquishing your CAMs (or ICAMs) back to your customers. Now we can all take a short recess, but remember, when it comes to properly wipe testing your chemical monitors...you're never too old for a refresher course. ★



New "Special Form Certificate" for the AN/UDM-2 RADIAC Calibrator Set



Take a good look at your "**Special Form Certificate**" for the AN/UDM-2 RADIAC Calibrator Set. Did it expire on August 31, 2003? Now isn't that "**special**"..?? **NOT**..!!

Then again, if yours has expired and you need a copy of the new certificate, which by the way expires on July 31, 2008, don't worry, for we have placed a copy, in PDF format, at two locations on the internet! You can download a copy at the CECOM Directorate for Safety website:

<http://www.monmouth.army.mil/cecom/safety>

or at the DA RSO website:

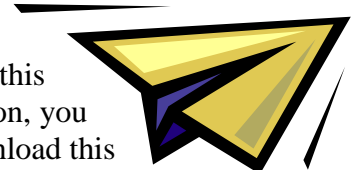
<https://www.monmouth.army.mil/rso>.

Why keep a copy of this certificate on file...?? As the shipper of the AN/UDM-2, Department of Transportation (DOT) Regulations say that you must maintain a copy of the special form certificate on file! If your shipment falls under International Air Transport Association (IATA) regulations, a copy of the special form certificate must accompany the shipment. The radiation source in the AN/UDM-2 (i.e., Sr-90) meets the regulatory requirements for special form radioactive material. Remember, radioactive material is not special form unless you have the documentation to prove it! Technically speaking, what we are asking you to maintain on file is a copy of the IAEA Certificate of Competent Authority issued for special form radioactive material. If you have any questions, call Hugo Bianchi of our staff @ ext 6444, he **specializes** in "**special**" forms....☺



Analyze This... New Leak Test Request Form

We have once again revised the form that you use to submit the leak test samples of the M43A1, CAM, and ICAM. (seems we do this at least once a RADCO). The Leak Test Request Form (LTRF) that is currently being used for submitting leak tests has a date of July 2002 on the bottom of the page. The new revised LTRF reads, "Revised October 2003" at the bottom of the form. The new form is attached to the end of this RADCO so be sure to make some double-sided copies for your files and don't forget to "THROW OUT THE OLD FORMS.... PLEEEEEESE." To further expedite this transaction, you can download this form from our website. (The web address is listed on the bottom of page 2 of this newsletter.)



The major change to the LTRF is the addition of sample numbers 36 and 37, located on page 2 of the form, for annotating the submission of kraft paper wipes. This will preclude you from having to fill out a Wipe Test Analysis Request Form for these wipes.

You will also come across a couple of minor additions to the DODAAC sections of the form in that we have defined what DODAAC should be annotated for the reporting and testing activities. To expand on these changes, here is a re-print from a previous RADCO describing the process of inputting data into the Radiation Testing and Tracking System (RATTS):

So exactly how does the Radiation Testing and Tracking System (RATTS) track leak test data for the Chemical Agent Detectors and Alarms...??

To answer this question we first need to become familiar with the terms **owning unit**; **testing unit**; **reporting unit**; and **radiological laboratory**.

The **owning unit** is sorta' self-explanatory (their the folks that use the equipment). The **reporting unit** is the Serialization Officer, usually at the USP&FO. The **testing unit**, generally personnel from the CSMS, performs the annual leak test on the Chemical Agent Monitor (CAM) or Chemical Agent Detector (CAD). The **radiological laboratory** analyzes the leak test sample and reports the results to LOGSA and the testing unit.

Now that we are familiar with who's doin' what.... lets take a look at how the system is expected to work. When a CAM or CAD is due for leak testing, the reporting unit (USP&FO) should provide 3 copies of a transaction work card to the owing unit. The owning unit then fills in the required information on the transaction work cards and delivers the CAM or CAD along with the 3 cards to the CSMS. The CSMS performs the leak test, fills in the required information on the transaction work cards and returns the CAM/CAD



to the unit. The CSMS gives one copy of the transaction work card to the owing unit, one copy to the reporting unit and sends the 3rd copy, along with the leak test sample, to the radiological laboratory (that's us). The radiological laboratory analyses the sample and reports the results to LOGSA and the testing unit (CSMS).

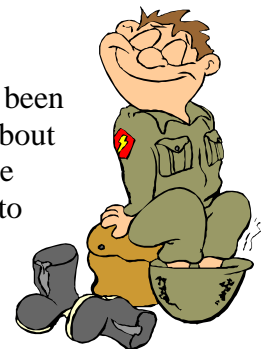
More detailed information on the RATTS can be found in AR 710-3, Section IV.

Finally, with the fielding of Property Book Unit Supply - Enhanced (PBUS/E), your Serialization Officer may have been informed that they no longer have to input into

the RATTS. Well don't believe it... **This is not the case!** Your Serialization Officer is still required to input into RATTS, unless they have transferred to WEB-UIT, where he or she is now required to enter the data into this new system. ★

We Love to See Your Smiling Faces..... **Announcing Our FY04 RSP EVALUATION SCHEDULE!**

In case you've been wondering about when we'll be stopping by to say hello and check to see how you've been takin' care of business (your RAD-business, that is), here's an advance schedule of our FY04 ARNG state RSP evaluations. As always, we'll be contacting your State Radiation Safety Officer well in advance to set up a time that is most convenient for all you hard-working Local Radiation Safety Officers.



Now, if you don't see your state or territory listed, that means you were compliant in FY03 and have managed to

escape the somewhat laid-back "wrath of CECOM" ☺ for at least another year. However, you will be required to perform a self-evaluation of your RSP, by completing the CECOM DS RSP Checklist and forwarding us a copy of your results.

So in preparation of our next visit, first off, we suggest you dust off those boyish/girlish grins cause, after all...we love to see you smile...☺ ☺ ☺...!! ☆

DATE	STATE
October 2003	KS, ND, OR
November 2003	MD, SD
December 2003	WY
January 2004	KY, LA
February 2004	AL, NM
March 2004	AR, GA, HI, PA, TN
April 2004	FL, GU, NC, VI
May 2004	AZ, IA, ID, PR, VT
June 2004	- spring break -
July 2004	DE, NJ
August 2004	ME, WA
September 2004	MA, RI, UT, VA



PUZZLES & BRAIN-TEASERS

QUICKIE QUIZ:

1. The leak test for these two items are conducted on an annual frequency and the required leak test media is a swab:

- a. MC-1 and CAM
- b. AN/UDM-2 and AN/UDM-6
- c. MC-1 and M43A1
- d. CAM and AN/UDM-6

2. The leak test procedure for these two items require you to use a smear or filter (i.e., metricel or Nu-Con):

- a. MC-1 and CAM
- b. AN/UDM-2 and

- AN/UDM-6
- c. MC-1 and M43A1
- d. CAM and AN/UDM-6

3. As an RSO, you should be familiar with the requirements of AR 25-400-2; the date on latest version of the AR is:

- a. 18 FEB 1999
- b. 18 MAR 2003
- c. 10 JAN 1991
- d. 22 NOV 2002

4. As an RSO, you need to be familiar with radiofrequency and LASER radiation producing devices that

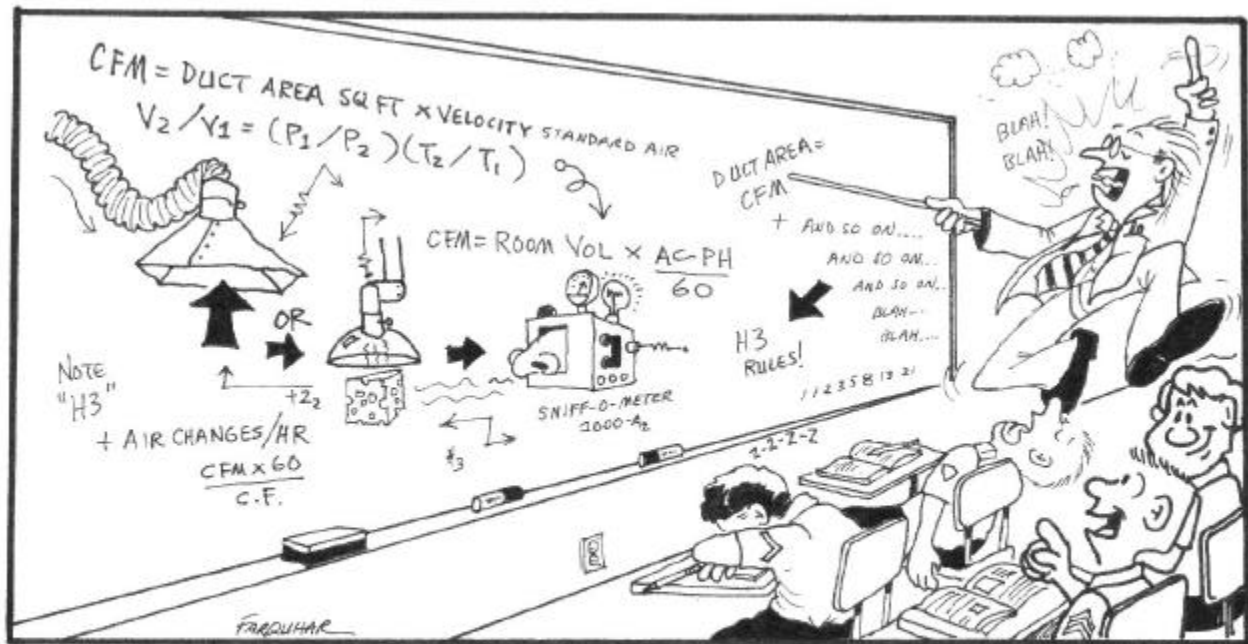
soldiers commonly use. A TB that you should become familiar with is:

- a. TB 43-0133
- b. TB 42-0116
- c. TB 43-0255
- d. TB 43-0137

5. Your job is to prepare radioactive packages for shipment, the TB that you should become most familiar with is:

- a. TB 43-0133
- b. TB 42-0116
- c. TB 43-0255
- d. TB 43-0137

in the field.... by lyle farquhar



"I'D SAY THERE IS ENOUGH HOT AIR IN THAT INSTRUCTOR TO VENTILATE MY ENTIRE TRITIUM WORK AREA...!"

Why "MAM"... Had I Only Known...!!

Recently, Maintenance Advisory Message (MAM), MAM-03-031, was issued in support of TACOM's Nuclear Regulatory Commission (NRC) By-Product Materials License (BML), 12-00722-06, Conditions for H3 Fire Control Devices (FCD).

Of special concern, as highlighted in the MAM, is that many activities may not

be complying with two key NRC license conditions:

a. **Quarterly wipe test surveys at tritium storage locations and monthly wipe test surveys of direct support tritium repair shops.**

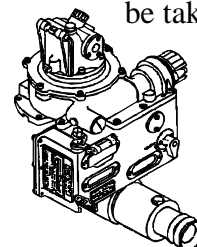
b. **Radiation safety training of users/maintainers of tritium commodities.**

Okay, now that you're "in the know" as to the purpose of the MAM, let's go over what must be done to insure

compliance with TACOM's License:

a. Surveys:

Quarterly wipes of storage locations and monthly wipes of depot level fire control repair facilities shall be taken. This includes all locations that store tritium FCDs associated with the howitzers (M198, M119A1, M102), mortars (M224, M252, M120), and tank muzzle reference sensors (MRS).



You ask what is considered storage for these devices? For one of these devices to be considered placed in storage it would have been dismantled from its end-use configuration. If these items are kept in their end-use configuration no surveys are required (i.e., an MRS is left on a tank).

Also, the monthly wipes outlined above are required for depot level support only.

All DS/GS level support areas are required to do quarterly surveys of their work and storage areas.

b. Training:

**Individual User
(Unit Level)**

Users of TACOM-RI tritium FCDs are those individuals who place in operation or operate the devices. The individual user is authorized possession, use and performance of operational checks and services only as specified in unit level technical manuals. Unit commanders are required to ensure that soldiers using the devices do so in compliance with the appropriate TMs.

**Direct Support (DS)
Maintenance**

DS Maintenance Personnel are responsible for repair of TACOM-RI tritium FCDs above the level of authorized operational checks and services performed by users of the devices. DS Maintenance personnel will receive initial radiation safety training that includes safe handling procedures, recognition of damaged sources in the devices, and handling procedures for devices with potentially damaged sources. Training will be provided by the U.S. Army Ordnance Center and School, through on the job training under the

supervision of a school graduate, or by the TACOM Rock Island Safety Office.

The minimum qualifications of those who provide "on the job training" (OJT) is MOS training through the Army Ordnance Center and School or a shop supervisor or senior maintenance individual who has previously obtained OJT under the supervision of a school graduate.

Installation i.e., State RSO

The installation RSO is required to have training prior to assuming their duties and will have at least one examination during the course to assess the adequacy of the RSO's understanding of the

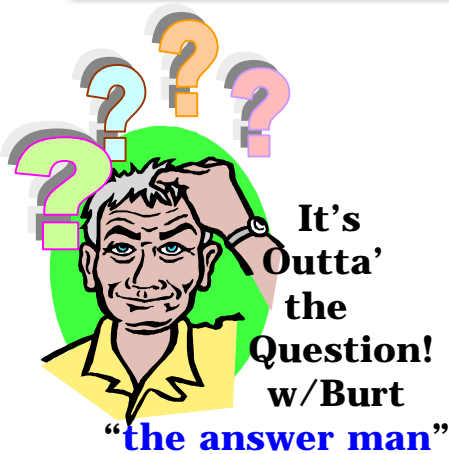
training material. The training shall include: hazards and biological effects of tritium in fire control devices located at the installation; emergency procedures; detection and measurement of radioactivity; calculations based on measurements; and good radiation program practices (storage, monitoring, decontamination, and disposal).

The Army's schools for preparing installation RSO's are the US Army Chemical School at Fort Leonard Wood, Missouri, and the US Army Medical Department Center and School at Fort Sam Houston, TX. The Army also employs individuals **"in the Navy"** who have successfully completed that service's RSO School in Yorktown, Virginia.



CECOM DS's "40-hour RSO Training Course" meets the acceptable requirements for RSO training. Finally, an interactive compact disk entitled "Radioactive Material Handling Safety" produced by the TACOM- Rock Island Safety Office, will be acceptable training for installation RSO's responsible for material under this license.

In addition to the above, the MAM also addresses other safety issues including incident reporting and the decommissioning of facilities where tritium devices are stored. But not to worry, "MAM"...those well-mannered folks at CECOM will tackle these issues in the next RADCO. ★



Our lone question at post time comes from a Ms. Sally Seabiscuit out of Sara Toga, New York. Sally writes: "It's coming down to the wire and I need to generate my **Annual Radioactive Inventory** using the SPBS-R program. I have one problem. The SPBS-R property book system has been replaced with PBUSE (a different tracking system) and the Serialization Officer can no longer generate the report. Can you help?"



All right Sally, what you're telling me is that you got out-of-the-gate a little slow in regards to capturing an inventory; your property book's accountability system has been replaced, and now you're rounding the last turn heading for the home stretch with still no way of generating an inventory in sight. And what's more, it's a weak field, but sure-footed CECOM is trailing you by a half a furlong (RSP evaluation due next month) and coming on fast. Don't panic Ms. Seabiscuit, we're on your team!

A Wing and a Prayer

Congratulations for a job well done to all of the Army National Guard (ARNG) members who attended the CECOM Directorate for Safety 40 Hour Radiation Safety Officer Course held in Buffalo, New York, 21-25 July 03.

Many students enjoyed feasting

Jumbo Wings



on those original Buffalo "**wings**" at the Anchor Bar while others "**prayed**" they would just make it thru the final exam. We would like to take this opportunity to recognize the two students who distinguished themselves by achieving the highest final course grades of 98. That honor goes to Christopher Rohrberg from the CSMS in California and John Olivo from the CSMS in New Jersey ...as indicative of all the dedicated LRSOs working throughout the ARNG, this honor truly stretches from "**coast to coast**".

You have a couple of options. You could just say "forgetaboutit." Running an inventory has been the long shot ever since I came on board. It ends up in that ole' saddle bag of a file cabinet of mine and no one ever looks at it. **Whoaaaa Sally!** An attitude like that might get us both in a sticky situation. OK, enough horsing around, lets get to some real options.

Here's the 2:1 favorite: Your last year inventory was generated with the SPBS-R system and separated by unit. All you have to do is provide each unit with their last year printout and let them verify it.

Once verified (by year-end) they can send you an email with any corrections and you can simply place these corrections in the stall (file) with a copy of last years inventory.

The oddsmakers have this option at 8:5: You can prepare a report listing all LINs identified on last years inventory. Provide this report to your Property Book Officer. The Serialization Officer can run "Report 9" on the PBUSE system, which will list the location and quantity of all LINs searched. Obviously, any new equipment received this year will not be listed on the previous inventory and will be missed. We recommend you call the RSO at CSMS, MATES, UTES, USP&FO and CST team and have them provide a list of any additional equipment received during the current year. Include the list(s) with the report provide by the Serialization Officer and file.

So place your bets and get set to run-off your next radioactive materials inventory. As for me, I'm off to the racetrack to see Sally Seabiscuit's stallion sprint in the sixth (say that 3 times fast).....

see you at the winner's circle..!!



NONIONIZING CORNER

Feeling the Heat... How RF Radiation Effects the Body..!!

In the last RADCO we put across the concept that the human body is a conductor of electrical current; not as good as a copper wire, but a conductor of electrical current all the same. When the human body is exposed to radiofrequency (RF) radiation, several things can happen. The energy can be reflected by the body (a conductor), it can be absorbed by the body, pass through the body, or any combination thereof.

When the body is confronted by RF radiation below about 100 MHz, the absorbed RF energy will cause a RF current to flow in the body. To predict what the effect will be, would depend upon several things, including the frequency of the radiation and the strength of the radiation at the point where it reaches the body. To better understand the specific effects, we'll use an analogy.

Let's say you placed two sections of water pipe on the ground side by side, both of equal length but of differing cross-sectional area

(diameter). The section with the larger diameter would have passed more water per unit time than would the pipe having the smaller diameter. From this we could conclude that the pipe with the larger diameter would have presented less *resistance* to the flow of water than the smaller diameter pipe. It turns out that the same is true for differing diameters (gages) of wire and for differing cross-sectional areas in our bodies. When current passes through these smaller areas, high *current density* (current per unit area) conditions may exist. We'll explain the significance of such areas real soon!

It turns out that below about 100 MHz, RF fields can cause RF currents to flow within and through the human body. When they do, these currents will pass through differing effective cross-sectional areas (diameters) of conducting tissue. As they pass through areas having smaller effective cross-sectional areas (e.g. wrists, knuckles, knees, ankles, etc.) localized heating results. If the heating persists, the temperature of the tissue may rise above approximately 41-degrees Celsius (approximately 106 degrees Fahrenheit) causing potential tissue damage and the destruction of cells. If you're in close proximity of a

transmitting antenna and feel a warming sensation, whether it's on the surface of your skin or in one of your joints, move away from the antenna quickly.

In general, when nearby metallic surfaces are in the path of RF radiation, RF currents in those surfaces may result, causing localized heating. Coming into contact with such surfaces may result in a nasty shock or burn, which will heal very slowly.

The bottom line is: stay clear of transmitting antennas and avoid contact with nearby metallic surfaces!

O.K.....I'm heatin' up here too. Let's step outside and cool off. Relax until next time when we discuss other relevant topics about *Non-Ionizing Radiation* ★

QUICKIE QUIZ SOLUTIONS:

1. The leak test for these two items is conducted on an annual frequency and the required test media is a swab:

- a. MC-1 and CAM
- b. AN/UDM-2 and AN/UDM-6
- c. MC-1 and M43A1**
- d. CAM and AN/UDM-6

2. The leak test procedure for these two items require you to use a smear or filter (i.e., metrical or Nu-Con):

- a. MC-1 and CAM
- b. AN/UDM-2 and AN/UDM-6
- c. MC-1 and M43A1
- d. CAM and AN/UDM-6**

3. As an RSO, you should be familiar with the requirements of AR 25-400-2; the date on latest version of the AR is:

- a. 18 FEB 1999
- b. 18 MAR 2003**
- c. 10 JAN 1991
- d. 22 NOV 2002

4. As an RSO, you need to be familiar with radiofrequency and LASER radiation producing devices that soldiers commonly use. A TB that you should become familiar with is:

- a. TB 43-0133**
- b. TB 42-0116
- c. TB 43-0255
- d. TB 43-0137

5. Your job is to prepare radioactive packages for shipment, a TB that you should become familiar with is:

- a. TB 43-0133
- b. TB 42-0116
- c. TB 43-0255
- d. TB 43-0137**

RADCO REGISTER

CHANGE/ADD-ON

E-MAIL ADDRESS FORM

The **RADCO Register** is published by the CECOM DS to support the NGB State Radiation Safety Programs. It is distributed electronically. Help us ensure you don't miss a single issue.

Please fill out this form and FAX it back to us @ **732-542-7161**. You can also mail it to: USACECOM, Directorate for Safety (DS), ATTN: AMSEL-SF-RE (ZIOLA), Building 2539, Fort Monmouth, NJ 07703-5024. Or better yet, email your info to us at: gary.ziola@mail1.monmouth.army.mil

Name: _____ Title: _____

Organization/Facility: _____

Address: _____

City: _____ State: _____ Zip: _____

E-mail: _____



CECOM Radiological Engineering Laboratory
Leak Test Analysis Request Form for the CAM; ICAM;
M43A1 CAD; and the ACADA

Mail samples to:

Commander
 U.S. Army CECOM
 Attn: AMSEL-SF-RE (LAB)
 Building 2540, Charles Wood Area
 Fort Monmouth, NJ 07703-5024

Send test results to:

POC: _____

Phone: (DSN) _____

Fax: (DSN) _____

(Comm) _____

(Comm) _____

E-mail: _____

Leak Test Date: _____

Reporting Activity DODAAC: _____

(Serialization Officer's activity)

Testing Activity DODAAC: _____

(Activity performing leak test)

Sample No.	DODAAC Owning Unit	Cell / Module S/N * Z16 / Z47 / Z03 / Y14-M	Detector / Monitor S/N * Z16 / Z47 / Z03 / Y14-D
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* Please CIRCLE the Applicable Prefix Z16 (CAM); Z47(ICAM);
 Z03(M43A1); or Y14 (ACADA)(M88)

CECOM Radiological Engineering Laboratory
Leak Test Analysis Request Form for the CAM; ICAM;
M43A1 CAD; and the ACADA

Sample No.	DODAAC Owning Unit	Cell / Module S/N * Z16 / Z47 / Z03 / Y14-M	Detector / Monitor S/N * Z16 / Z47 / Z03 / Y14-D
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Kraft Paper Wipes

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37.			

* Please CIRCLE the Applicable Prefix Z16 (CAM); Z47(ICAM);
 Z03(M43A1); or Y14 (ACADA)(M88)